

PR250 Hoefer Mini Orbital Shaker



Page Finder

Important User Information	ii
Waste Electrical and Electronic Equipment (WEEE)	v
1. Mini Orbital Shaker Function and Description	1
2. Unpacking and Inspection.....	1
3. Specifications	2
4. Safety Recommendations	2
5. Front and Rear View PR250	3
6. Power Connection	4
7. Platform Installation	5
8. Operation Instruction	7
9. PR250 Cleaning.....	8
10. Troubleshooting	9
11. Technical Service & Repair.....	10
12. Equipment Disposal.....	10
13. Ordering Information.....	11

English

Important User Information

Please read this entire manual to fully understand the safe and effective use of this product. Should you have any comments on this manual, we will be pleased to receive them at:

Hoefer, Inc.
84 October Hill Road
Holliston MA 01746 USA
Tel: 800-227-4750 (USA & Canada)
Tel: +1-508-893-8999
Fax: +1-508-893-0176
Email: support@hoeferinc.com

Hoefer, Inc. reserves the right to make changes in the specifications without prior notice.

Warranty and liability

Hoefer, Inc. guarantees that the product delivered has been thoroughly tested to ensure that it meets its published specifications. The warranty included in the conditions of delivery is valid only if the product has been installed and used according to the instructions supplied by Hoefer, Inc.

Hoefer, Inc. shall in no event be liable for incidental or consequential damages, including without limitation, lost profits, loss of income, loss of business opportunities, loss of use and other related exposures, however caused, arising from the faulty and incorrect use of the product.

Français

Renseignements importants d'utilisation

Pour une bonne compréhension et une utilisation en sécurité maximale, il convient de lire entièrement ce manuel. Tous vos commentaires sur ce manuel seront les bienvenus et veuillez les adresser à:

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Email: support@hoeferinc.com

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Garantie et responsabilité

Hoefer, Inc. garantit à l'utilisateur que le produit livré a subi avec succès tous les essais prévus pour s'assurer qu'il est conforme aux spécifications et normes en vigueur. La garantie incluse dans les conditions de livraison n'est valable que si le produit a été installé et utilisé conformément aux instructions fournies par Hoefer, Inc.

La société Hoefer, Inc. ne sera en aucun cas responsable de tout dommage causé directement ou indirectement par toute utilisation incorrecte ou non approuvée du produit ou découlant de cette utilisation, y compris toute perte de bénéfice ou de recettes, toute perte de perspectives commerciales, tout empêchement d'utilisation et tout autre risques ayant un rapport avec l'utilisation du produit, mais sans aucune limitation quant à la nature de ces dommages.

Español

Información importante para el usuario

Para comprender el producto y utilizarlo con seguridad es necesario leer este manual en su totalidad. Si desearan hacer algún comentario sobre este manual, tengan la amabilidad de remitirlo a:

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Hoefer, Inc. garantiza que el producto entregado ha sido probado a fondo para comprobar el cumplimiento de las especificaciones publicadas. La garantía incluida en las condiciones de entrega sólo es válida si el producto se ha instalado y utilizado de acuerdo con las instrucciones entregadas por Hoefer, Inc.

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Deutsch

Wichtige benutzerinformationen

Für ein vollständiges Verständnis und eine sichere Handhabung dieses Produktes ist es notwendig, daß der Benutzer dieses Handbuch vollständig durchliest. Wenn Sie Anmerkungen zu diesem Handbuch haben, dann senden Sie diese bitte an:

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Hoefer, Inc. behält sich das Recht vor, die Spezifikationen ohne vorhergehende Ankündigung zu ändern.

Gewährleistung haftung

Hoefer, Inc. garantiert, daß das gelieferte Produkt sorgfältig auf die Einhaltung der veröffentlichten Spezifikationen getestet wurde. Die in den Lieferbedingungen näher erläuterten Gewährleistungsansprüche gelten nur dann, wenn das Produkt gemäß den von Hoefer, Inc. gelieferten Anweisungen installiert und benutzt wurde.

Hoefer, Inc. übernimmt keinerlei Haftung für Schäden oder Folgeschäden, einschließlich, aber nicht begrenzt auf Gewinneinbußen, Einkommensverluste, entgangene Geschäftsabschlüsse, Verlust der Gebrauchsfähigkeit oder andere Verluste, die wie auch immer durch eine fehlerhafte oder unsachgemäße Verwendung des Produkts verursacht wurden.

Informazioni importanti per l'operatore

Per un utilizzo sicuro del prodotto, leggere attentamente l'intero contenuto del presente manuale. Si prega di inviare eventuali commenti al presente manuale a:

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Hoefer, Inc. si riserva il diritto di apportare modifiche ai dati tecnici senza preavviso.

Garanzia e responsabilità

Hoefer, Inc. garantisce che prima della consegna il prodotto è stato collaudato a fondo per soddisfare i requisiti specificati. La garanzia inclusa nelle condizioni di consegna risulta valida solamente se il prodotto è stato installato ed utilizzato nel rispetto delle istruzioni fornite da Hoefer, Inc.

Hoefer, Inc. non potrà essere ritenuta responsabile di incidenti o danni consequenziali, inclusi ma non limitati a perdite di profitti, mancato guadagno, perdite di affari, difetti di funzionamento e relative esposizioni, dovuti ad un utilizzo non corretto del prodotto.

Waste Electrical and Electronic Equipment (WEEE)

ENG



This symbol indicates that the waste of electrical and electronic equipment must not be disposed as unsorted municipal waste and must be collected separately. Please contact an authorized representative of the manufacturer for information concerning the decommissioning of your equipment.

FRA



Ce symbole indique que les déchets relatifs à l'équipement électrique et électronique ne doivent pas être jetés comme les ordures ménagères non-triées et doivent être collectés séparément. Contactez un représentant agréé du fabricant pour obtenir des informations sur la mise au rebut de votre équipement.

SPA



Este símbolo indica que el equipo eléctrico y electrónico no debe tirarse con los desechos domésticos y debe tratarse por separado. Contacte con el representante local del fabricante para obtener más información sobre la forma de desechar el equipo.

GER



Dieses Symbol kennzeichnet elektrische und elektronische Geräte, die nicht mit dem gewöhnlichen, unsortierten Hausmüll entsorgt werden dürfen, sondern separat behandelt werden müssen. Bitte nehmen Sie Kontakt mit einem autorisierten Beauftragten des Herstellers auf, um Informationen hinsichtlich der Entsorgung Ihres Gerätes zu erhalten.

ITA



Questo simbolo indica che i rifiuti derivanti da apparecchiature elettriche ed elettroniche non devono essere smaltiti come rifiuti municipali indifferenziati e devono invece essere raccolti separatamente. Per informazioni relative alle modalità di smantellamento delle apparecchiature fuori uso, contattare un rappresentante autorizzato del fabbricante.

SWE



Denna symbol anger att elektriska och elektroniska utrustningar inte får avyttras som osorterat hushållsavfall och måste samlas in separat. Var god kontakta en auktoriserad tillverkarrepresentant för information angående avyttring av utrustningen.



The Hoefer PR250 Mini Orbital Shaker.

1. Mini Orbital Shaker Function and Description

The Hoefer PR250 Mini Orbital Shaker is a sturdy, reliable unit that rotates through a 20 mm orbit. The orbital speed ranges between 50 and 250 rpm. The long-life direct brushless motor gives gentle shaking of samples. The PR250 includes an LCD display and a digital timer with a range of 0–100 hrs. The PR250 is ideal for staining and de-staining of PAGE gels and processing of Western blots.

2. Unpacking and Inspection

Unpack and inspect the Mini Orbital Shaker and accessories immediately upon receipt. Lift the unit out of the box and place on a clean level surface. Inspect all components for damage that may have occurred while the unit was in transit. Report any damage to the responsible carrier immediately, the carrier will provide the form required for filing such a claim.

To report missing items, or for questions regarding the instrument's use, contact your authorized Hoefer Dealer or Hoefer, Inc.:

Hoefer, Inc.
84 October Hill Road
Holliston MA 01746 USA
Tel: 800-227-4750 (USA & Canada)
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Email: support@hoeferinc.com

Be sure to keep all packing material for damage claims or to use should it be necessary to return the unit.



3. Specifications

Shaking speed	50–250 rpm
Orbit	20 mm
Digital timer	1 min–99 hour 59 min or continuous run
Max. load capacity	2.5 kg
Power supply	50 Watts
Power input	24 V DC 2.0 A
Dimensions (L × W × H)	28 × 27 × 11 cm
Weight	7.5 kg
Temperature range	4°–45° C
Relative humidity range	≤ 70%

Note: the PR250 is a Universal Voltage instrument, 100–240 V 50/60 Hz.

Relevant EC Directives and Harmonized Standards:

Low Voltage Directive 2006/95/EC
EMC Directive 2004/108/EC
EN 61010-1 Lab Equipment
EN 61010-2-020 Lab Equipment
EN 61326-1:2006 Lab Equipment, EMC



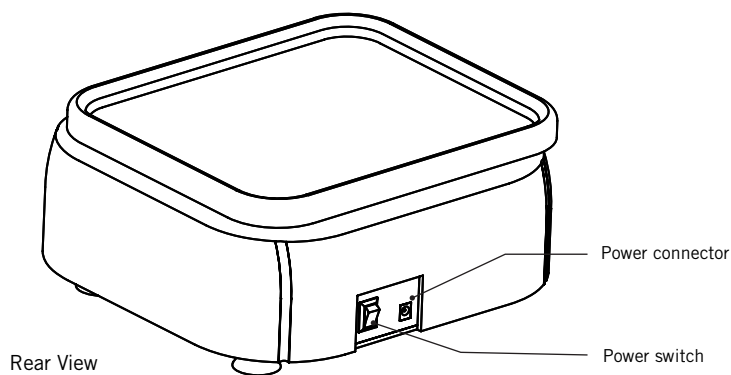
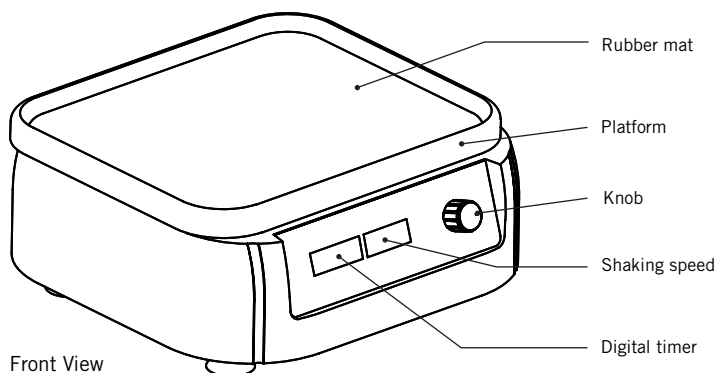
4. Safety Recommendations

Note: There are no motor brushes to replace on the PR250, if motor stops please contact the Hoefer service department.

- Plug the instrument into a properly grounded outlet.
- Always disconnect the power cord before servicing.
- If this equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.
- Only accessories and parts approved by or supplied by Hoefer, Inc. may be used for operating, maintaining, and servicing this product.

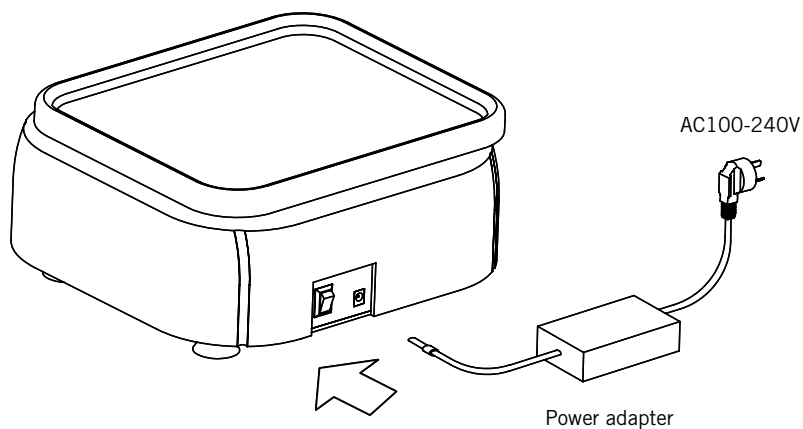


5. Front and Rear View PR250



6. Power Connection

Place the Orbital Shaker on a dry laboratory bench away from sinks or water sources. Plug the power supply unit into the socket at the rear side of the shaker. The external universal power supply adapter (power adapter AC100-240V shown) prevents damage to the unit.

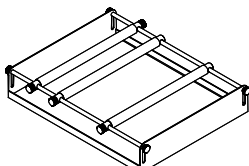


7. Platform Installation

There are four interchangeable platforms available for the Hoefer PR250 Mini Orbital Shaker.

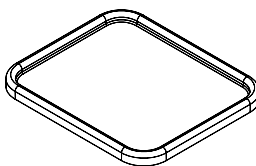
PR250-UTBL

Universal platform with sliding bars



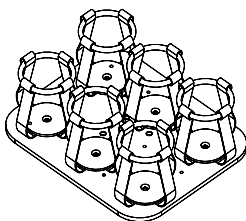
PR250-FTBL

Flat top platform with skid resistant mat



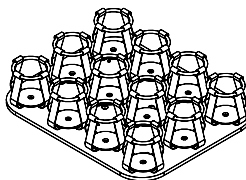
PR250-F250

Platform for 6X 250–300 ml flasks



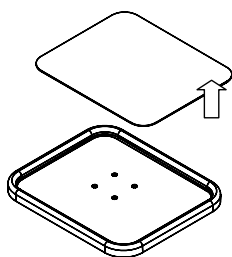
PR250-F100

Platform for 12X 100–150 ml flasks



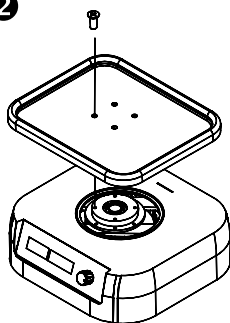
7. Platform Installation (continued)

1



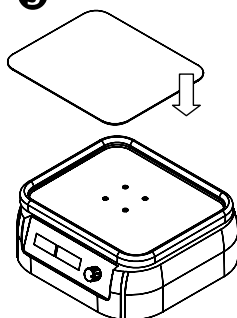
Remove the non-skid rubber mat to access the screws. Remove 4 screws located in the center of the platform.

2



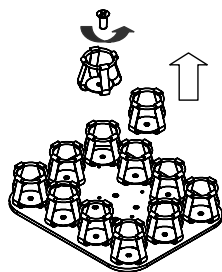
Insert the 4 screws, through the platform onto the shaker head and tighten.

3



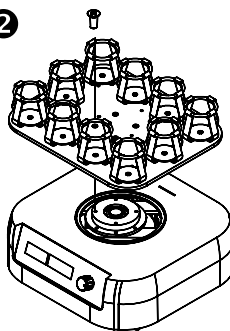
Replace the non-slip mat on the platform.

1



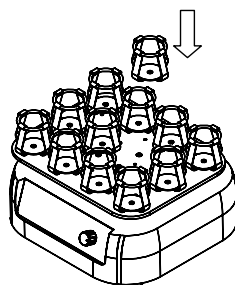
Remove the two middle clamps to access the screws.

2



Inserting 4 screws, through the platform onto the shaker head and tighten.

3



Replace the two middle clamps into the platform.

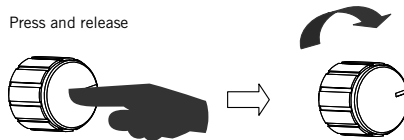
8. Operation Instruction

Setting speed and time

- When the instrument powers on, the display screen will show **88:88**. The instrument will go through a diagnostic step then beep.
- When ready, the time display window will show **09:30** as the set Time, this indicates a running time of 9 hours and 30 minutes. The speed display window shows **200**, indicating the shaking speed is set to 200 rpm.

To change the settings, press the knob and release, the digit of the speed display will begin blinking. To increase the speed, turn the knob clockwise, and to decrease the speed turn the knob counterclockwise.

Press and release



88:88 888

09:30 200

09:30 200

09:30 200

09:30 200

Press the knob and release again the minutes display will blink. To increase the time turn the knob clockwise, and to decrease the time turn the knob counterclockwise.

Press the knob and release a third time, the hours will blink. Increase the time by turning the knob clockwise, and decrease the time by turning the knob counterclockwise.

When complete wait 4 seconds for the display to stop blinking, and the set value will remain. To start the unit, press the knob for approximately 1 second.

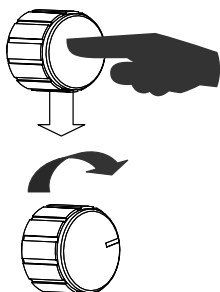
The PR250 can be set to run continuously — turn the time setting knob counter clockwise until “00:00” appears in the display; the PR250 is now set to continuous.

Note: While turning speed control knob counterclockwise “OFF” may appear in display, this indicates the speed is set to zero.

Press the knob



Press and release



Caution! Always unplug unit from electrical supply before cleaning or drying the unit.

Starting and stopping

To start the PR250 press the knob for approximately 1 second, the unit will run at the set speed and for the time programmed or continuous (value will be displayed in time window).

To stop the unit press the knob for approximately 1 second and the unit will stop; the display will show the values previously set.

Changing the speed and timing during operation

- While the unit is running, press the knob, the tens digit of speed will blink, rotate the knob to change speed.
- Press the knob a second time, the time digits will blink. The time can now be adjusted by turning the knob.
- Once the time has been selected there will be a 4 second delay until the blinking stops, at which time the display will show the new set time. The instrument will now function at the new set speed and time.

9. PR250 Cleaning

- The PR250 should **never** be immersed in water.
- The platforms and clamps should be cleaned with diluted liquid soap.

10. Troubleshooting

Problem	Possible Causes	Solution
Display does not light after switching power-on	No power	Check the plug is correctly connected to both the instrument and power supply.
	Bad adapter	Exchange adapter (24VDC 2A)
	Switch failure	Replace power switch
	Other	Contact Hoefer, Inc.
Uneven shaking of samples	Sample containers are placed asymmetrically	Place the sample containers in a symmetrical pattern
The actual speed is different from the displayed speed	Broken sensor or poor contact of the sensor module	Contact Hoefer, Inc.
“ERR” in the display	Shaking speed can not be controlled	Contact Hoefer, Inc.
Start function on the knob does not work	Rheostat failure	Contact Hoefer, Inc.



IMPORTANT! Request a copy of the Hoefer, Inc. "Health and Safety Declaration" form before returning the item. No items can be accepted for servicing or return unless this form is properly completed.

Note: A Return Authorization (RA) number must be obtained from Hoefer, Inc., before returning any item to Hoefer, Inc.



11. Technical Service & Repair

Hoefer, Inc. offers complete technical support for all of our products. If you have any questions about how to use this product, or would like to arrange to repair it, please contact Hoefer, Inc. directly or your authorized Hoefer, Inc. representative.

Hoefer, Inc.

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12. Equipment Disposal

This equipment is marked with the crossed out wheeled bin symbol to indicate that this equipment must not be disposed of with unsorted waste.

It is your responsibility to correctly dispose of your equipment by handing it over to an authorized facility for separate collection and recycling. It's also your responsibility to decontaminate the equipment prior to disposal in case of biological, chemical and/or radiological contamination.

For more information about where you can drop off your waste of equipment, please contact Hoefer, Inc. or your local Hoefer, Inc. representative from whom you originally purchased this equipment.

In so doing you will help to conserve our natural and environmental resources and you will ensure that your equipment is recycled in a manner that protects human health.

13. Ordering Information

product	catalog number
Mini Orbital Shaker 115 VAC (includes 115 V power cord)	PR250-115V
Mini Orbital Shaker 230 VAC (includes 230 V power cord)	PR250-230V

Accessories and Replacement Parts

Flat platform with skid resistant mat	PR250-FTBL
Platform for 12x 100–150 ml flasks	PR250-F100
Platform for 6x 250–300 ml flasks	PR250-F250
Universal platform with adjustable bars	PR250-UTBL

Hoefer, Inc.

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Holliston, MA 01746

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